AUTO SECURITY
COMPUSTAR

USER'S GUIDE

One-Way AM Remote R500A / Alarm Controller CM1000A

One-Way AM Remote R500A

FCC ID :O44J1WENR

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including
    interference that may cause undesired operation.

CAUTION : Changes or modifications not expressly approved by
          the party responsible for compliance could void the
          user's authority to operate this device.

AUTO SECURITY
COMPUSTAR

By: Firstech, LLC.
www.compustar.com

By Firstech, LCC
www.compustar.com

User's Guide

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Safety Information

Servicing your vehicle or loaning it to others

Servicing your vehicle or loaning it to others When servicing the vehicle, like changing/checking the oil, or loaning your vehicle to someone who may not be familiar with Compustar systems, it may be best to put the system in valet mode.

Putting the system in Valet Mode will prevent them from accidentally activating and/or triggering the Compustar alarm or operations. Compustar systems could be frustrating to use for someone who is not familiar with them, and who has no documentation available to reference for instruction.

Remote Description

The **R500A** is a one-way AM four button remote.

Remote Button Functions

	Button	Press	Function
1	🔒	0.5 sec	Lock
2	🔓	0.5 sec	Unlock
3	🔒 + 🔓	0.5 sec	Siren Chirps - on/off (while arming/disarming)
4	🔒 + 🚗	0.5 sec	Valet Mode - on/off
5	🔊	2.5 sec	Panic, Press 🔒 or 🔓 to shut off the Siren
6	🔒 + 🔊	0.5 sec	Ignition Controlled Door Locks - on/off
7	🔓 + 🚗	0.5 sec	Passive Arming - on/off
8	🔓 + 🔊	0.5 sec	Shock Sensor - on/off
9	🚗	2.5 sec	Trunk Release- on/off
10	🚗 + 🔊	2.5 sec	Programming Menu

Remote Coding Procedure

The remote must be coded to the system installed in the vehicle before it can be operated in any way. Listed below is the remote coding procedure, please read through the directions before beginning.

Step 1 : Turn the ignition ON then OFF, five times within seven seconds.
The parking lights on the vehicle should flash once.
Step 2 : Tap the 🔒 button once.
The parking lights on the vehicle should flash once.
Step 3 : Repeat step 2 for each additional remote you have.
You can only program up to three remotes.
Step 4 : Wait a few seconds.
The parking lights on the vehicle should flash twice.
If you programmed three remotes, the lights will flash twice right away without waiting a few seconds.

Locking and Unlocking the Doors

To lock the vehicle doors, hold the 🔒 button down until the LED on the remote stops flashing. To unlock the doors, hold the 🔓 button down until the LED on the remote stops flashing. In either case, if the LED on the remote stops flashing and the operation was not performed, you will need to release the button and try again.

Arming and Disarming the System

To arm the alarm, hold the 🔒 button down until the LED on the remote stops flashing. To disarm the alarm, hold the 🔓 button down until the LED on the remote stops flashing. In either case, if the LED on the remote stops flashing and the operation was not performed, you will need to release the button and try again. These operations will lock and unlock the doors as well.

Trunk Release

To release the trunk, hold the 🚗 button down until the LED on the remote stops flashing. If the LED on the remote stops flashing and the operation was not performed, you will need to release the button and try again.

Panic Mode

Panic mode is to be activated when you are in trouble, or when you otherwise want to call attention to your vehicle. Once panic mode is activated, the doors will lock, the system will arm, and the siren will begin to sound. At this time the parking lights will be flashing as well. To activate panic mode, hold the 🔊 button down for at least 2.5 seconds.

Valet Mode

When in Valet mode, locking and unlocking the vehicle doors will be the only operations available through the remote, the system will not arm the alarm. The siren will be muted at this time as well. Use Valet mode mainly for the reasons described in the "Safety Information" section of this manual. To activate Valet mode, tap the 🔒 and 🚗 buttons simultaneously for a split second. Do the same again to remove the system from Valet Mode.

Note: If you have lost or damaged the remote, you can manually enter Valet mode by turning the ignition on then off 5 times.
You can exit Valet mode only with a remote.

OPTIONAL FEATURES/FUNCTIONS

These optional functions and features may require additional installation and/or programming. Please see your installer for more information.

Ignition Controlled Door Locks

With this feature turned on, when the vehicle is started with the key, the doors will lock after the vehicle has started. The doors will lock as soon as the key has been inserted and a turned to the ON position and either 30 seconds has passed, or the brake pedal has been pressed. The doors will then unlock when you turn the key to the OFF position. This option must be turned on through option programming.

Passive Locking

With Passive Arming/Locking turned on, the system will arm and lock the doors 30 seconds after closing the last open door. The process will go as follows:

10 seconds after closing the last door : 1 siren chirp and 1 parking light flash.

20 seconds after closing the last door : 1 siren chirp and 1 parking light flash.

30 seconds after closing the last door : 1 siren chirp and 1 parking light flash,

at this time the system will arm, and lock the doors as well.

This process is designed to notify you that the system is about to lock the doors in case your keys are still located in the vehicle. If this process begins, but you don't want the doors to lock, simply open one of the doors or turn the ignition to the ON position. The process will stop until the either the ignition is turned off and/or the last door is closed again. It will then restart at the beginning. To activate Passive Arming/Locking, tap the 🔓 and 🚗 buttons simultaneously for a split second. Do the same again to deactivate Passive Arming/Locking.

Starter or Ignition Kill

All systems come with a pre-wired starter kill relay that, when the system is locked and armed, the relay is set to monitor the ignition. If the ignition is turned on, the relay will trigger and sever the starter wire to keep the vehicle from starting, even with the key.

Alternatively, the relay can be rewired to sever the ignition wire instead. This would be optimal in two cases; manual transmission vehicles, and for using Anti-Jacking mode.

In a manual transmission vehicle, if the ignition is powered up, the vehicle can be compression or "bump" started without using the starter. Disabling the ignition will keep the vehicle from starting.

Anti–Jacking Mode

To use Anti-Jacking mode, the starter kill relay must be rewired to an ignition kill, and Anti-Jacking mode must be turned on in the programming options. With Anti-Jacking mode, if someone pulls you out of your vehicle while it is running and attempts to drive off with it, you can then Panic the system by holding the 🔊 button down for at least 2.5 seconds. The system will then sound the siren and flash the parking lights, 30 seconds later; the system will activate the ignition kill which will disable the vehicle. This is so you can activate Panic mode while the thief is still in range of your remote and have enough time to get out of immediate danger before the vehicle is disabled.

Mute Mode – Silent Arm/Disarm

When operating in mute mode, the siren on the vehicle will not sound during normal operations such as arm/disarm, lock/unlock, etc.
The siren will still sound if the alarm or Panic mode has been triggered. To activate Mute mode, tap the 🔒 and 🔓 buttons simultaneously for a split second. Do the same again to deactivate Mute mode.

Door Open Indicator (Option 3)

With this option turned on, if you leave your car without shutting all of the doors, the parking lights will flash.

Installation Guide

Installation Guide Table of Contents

Installation Tips and Recommendations

1. Precautions to prevent locking yourself out

Lower the window in one or more doors before beginning installation. This allows you to reach inside the vehicle in case you accidentally lock the keys inside the vehicle during the course of installation. Remotes are not programmed to the system so you will have to program them before operating the system. See page 5 for details.

2. Use a digital multi-meter for testing circuits

Use a digital multi-meter for all wire testing in the vehicle. This should be done on all wires even if you feel that you know exactly what they are and how they should test. Use of a test light draws a considerable amount of current and may damage the electrical circuit you are testing.

3.Find a good ground

One of the most important wire connections you will make is the connection to ground. Please find a location that has a low resistance path to the ground terminal of the battery. A poor ground will result in all kinds of future problems in operation.

4.Make surethe installation is not, or will not, be a driving hazard

During the installation process, try to foresee any potential hindrances, distractions, or problems for the driver.

a. Driving hazards

‧ There should be no wiring around any of the pedals.

b. Connecting and insulating wires

‧ Solder all connections.
‧ Insulate all wires with shrink tube or electrical tape.

c. Make sure that vibration or heat will not damage or otherwise alter your installation.

‧ Use zip-ties, tape or other securing devices to ensure that your wires and components stay where you put them.

‧ Do not route wires or mount components near sources of extreme heat such as exhaust manifolds.

‧ Do not route wires or mount components near moving parts of the engine or vehicle.

d. User familiarity with operations.

‧ The operations and features of the system should be explained thoroughly to the customer to prevent frustration due to the inability to operate all functions.

5. Vehicle check-in and check-out.

Doing a vehicle check-in prior to installation will help identify safety hazards that are currently present in the vehicle.
A vehicle check-in can be used to identify any present damage to the vehicle that may be blamed on the shop or installer when the vehicle is picked up or even at a later date.
Damage could include vehicle systems that are malfunctioning or even not functioning at all, as well as scratches and dents.
A vehicle check-out can be used to make sure the vehicle is functioning as well as it did when it was checked in, as well as be used as a time to educate the customer about the various features and functions of their new system.

CM1000A Wiring Diagram

CON1	1	Red	(+)12V Constant Input
	2	Violet	(+)Parking Light Output
	3	Brown	(+)Siren Output
	4	Gray	(+)Trunk Output
	5	Black	Ground

CON2	1	Yellow/Black	N.C 87A
	2	Yellow	COM. — Unlock Output
	3	Yellow/White	N.O 87
	4	Green/Black	N.C 87A
	5	Green	COM. — Lock Output
	6	Green/White	N.O 87

CON3	1	Green	(+) Ignition Input
	2	Blue	(-)250mA Output to Starter Kill
	3	Red/Black	(-)Door Trigger
	4	Red	(+) Door Trigger
	5	Violet/Black	(-)Trunk Trigger
	6	Lt. Blue/White	(+) Brake Input
	7	Black/White	(-)Optional Sensor Input

CON4	1	Black	Ground
	2	Black/White	(+) LED

CON5	1	Black	Ground
	2	White	(-)2nd Stage Input
	3	Red	(+)12V Output
	4	Yellow	(-)1st Stage Input

Antenna	Black

CON 1

Red : 12v Constant Input
Constant 12-volt (+) positive power input for the control module. This wire must be connected to a constant 12-volt (+) positive source. The proper wire will test 12-volt (+) positive with the key in the off position, while key is in the on position and during crank.

Violet : (+) Parking Light Output
Connect this wire to the (+) positive parking light wire generally at the parking light switch or behind the fuse box. The proper wire will test 12-volts (+) positive when the parking light switch is in the on position.

Brown : (+)12v Siren Output
This wire will provide a 30 second (+) positive output for the external siren.

Gray : (+)12v Trunk Output
This wire will provide a (+) positive trigger pulse. (Note: Negative trigger trunk release will require a relay. System will unlock doors and disarm alarm prior to trunk release.)


trunk Release Switch   CON1-4   trunk Solenoid
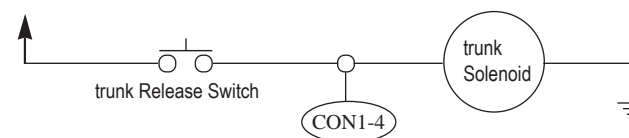
Black : Chassis Ground
This wire will connect to chassis ground. This is one of the most important connections you will make. Choose a factory grounding point or strip back the paint before grounding. We do not recommend using the steering column. Proper grounding is crucial to preventing future problems.
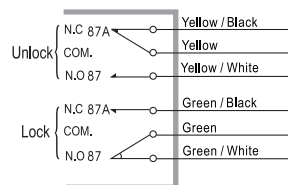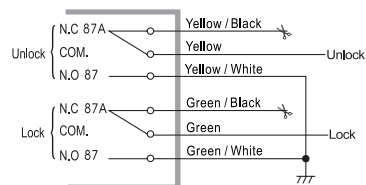
CON 2
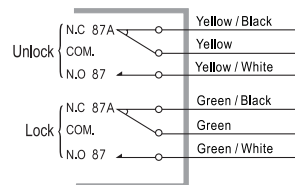
< Circuit diagram >
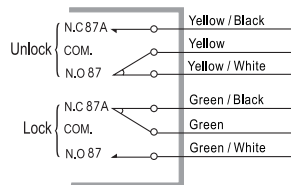
< Circuit diagram during unlock output >

The lock and unlock outputs of the CM1000A are actually two pre-wired relays that can be configured in the three following ways listed below. When connecting to a constant 12v+ source, you must fuse the connection.

< Circuit diagram during lock output >

Method 1

Negative Trigger Door Lock System (W/O Actuator)

Method 2

Positive Trigger Door Lock System (W/O Actuator)
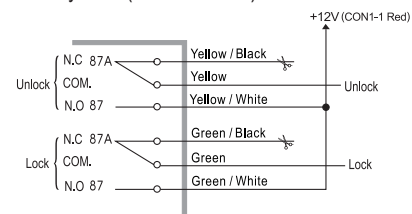
Method 3

External Actuator
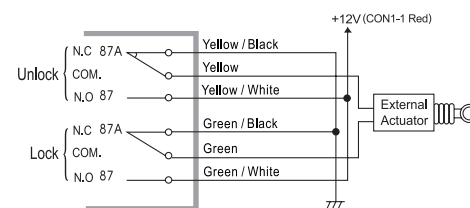
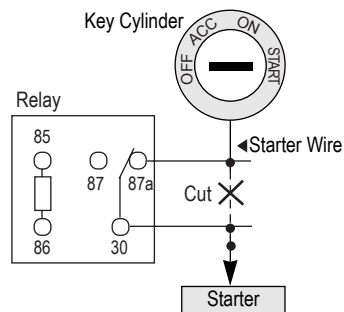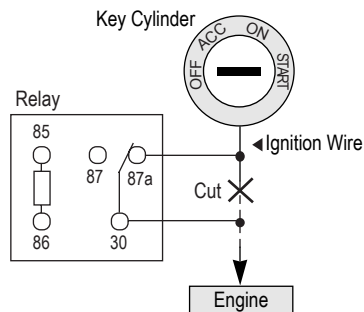< External Actuator >

CON 3

No.1 Green : (+)12v Ignition Input

This wire must be connected to the vehicles ignition to trigger remote programming and Valet mode. The proper wire will test 0-volts with the key in the off position, 12-volts (+)positive while the key is in the on position and 12-volts (+) positive during crank.

No.2 Blue : Negative Starter Kill Output

250mA (-) negative output when armed. This wire will provide a (-) negative output when system is locked and armed, and is pre-wired to the starter kill relay.

(Note:This wire can also be used to trigger after-market L.E.D. kits and other after-market accessories. Output must be diode isolated when used to trigger after-market accessories.)

.... Starterkill Mode ...

.... Anti Jacking Mode ...

Key Cylinder

OFF ACC ON START

Key Cylinder

OFF ACC ON START

Relay

85

87 87a

86 30

◄Starter Wire

Cut ✕

Starter

Relay

85

87 87a

86 30

◄Ignition Wire

Cut ✕

Engine

### No.3 Red / Black : Negative Door Trigger

This wire monitors (-) negative trigger door-pins.
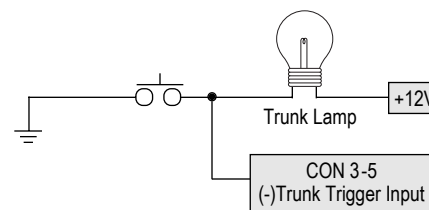The proper wire will provide a (-) negative trigger only when the doors are opened.

No.4 Red : Positive Door Trigger

This wire monitors (+) positive trigger door-pins.
The proper wire will provide a (+) positive trigger only when the doors are opened.

Dome Light

Door
Trigger SW

+12V

CON3-3(-) Door Trigger

Dome Light

Door
Trigger SW

+12V

CON3-4(+) Door Trigger
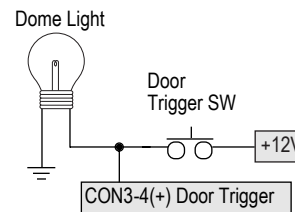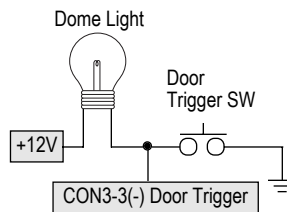
No.5 Violet/Black : Negative Trunk Trigger

This input will monitor when the vehicles trunk is opened.

+12V

Trunk Lamp

CON 3-5
(-)Trunk Trigger Input

No.6 Light Blue/White : Positive Brake Trigger

Connect this wire at the brake switch.
The proper wire will test 12-volts (+) positive only when the foot brake is pressed.

Stop Lamp

Foot Brake S/W

+12V

CON3-6(+)Brake Trigger
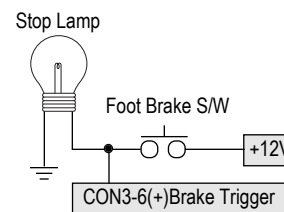
No.7 Black/White : Negative Input for Optional Sensor
When installing additional sensors, use this wire as the input wire to the alarm module for those sensors. When connecting more than one sensor to any input wire, you must diode isolate the output wires of each sensor. Otherwise, they could back feed into each other, causing false alarms or sensor damage.

CON 4

No. 1 Black : L.E.D. Ground
No. 2 Black / White : L.E.D. 3v Positive

CON 5

No. 1 Black   : Shock Sensor Ground
No. 2 White   : 2nd Stage Shock Sensor Input
No. 3 Red   : Shock Sensor 12v Positive
No. 4 Yellow   : 1st Stage Shock Sensor Input

Antenna

When installing the antenna wire, please take care to not excessively bend or twist it. Excessive or sharp bending or severe twisting can be the cause of inoperability or range issues.

Option Menu

	Features	🔒 (Factory Default)	🔓 (Optional Setting)
1	Door Lock/Unlock Pulse Duration	0.8 Sec	4 Sec
2	Application of Pre-wired Kill Relay	Starter Kill	Anti-jacking (IG-kill)
3	Door Open Parking Light Indicator	Disabled	Enabled
4	30 sec Passive Relock	Disabled	Enabled
5	Double Pulse Unlock	Disabled	Enabled

1. Door Lock/Unlock Pulse Duration
This option determines the output duration of the lock and unlock pulses Some Vehicles do not respond to short lock/unlock pulses.

2. Application of Pre-wired Kill Relay
This option requires that the starter kill relay be installed in the ignition circuit, rather than into the starter circuit. With this option turned on, Panic mode will become Anti-Jacking mode. If Anti-Jacking is activated while the vehicle is running with the key in the ignition, the siren will sound for 30 seconds.
After 30 seconds the system will break the ignition circuit, therby disabling the vehicle. The siren will continue to play for 1 more minute. With this option turned off, when Panic mode is activated, the system will arm, activate the starter kill, and play the siren for 1.5 minutes.

3. Door Open Parking Light Indicator
With this option enabled, the parking lights will flash if a door is left open while the vehicle is being armed. This serves as a warning that all of the doors have not been closed.

4. 30 sec Passive Relock

 With this option enabled, after disarming the system with the remote, the system will relock the doors and arm the alarm after 30 seconds if a door has not been opened. At 10 and 20 seconds after the disarm command was given, the siren will chirp once to indicate that the alarm is about to rearm. At 30 seconds after, the siren will chirp once, and the system will arm the alarm. If you wish to stop this process, you must open a door within 30 seconds of disarming the alarm.

5. Double Pulse Unlock

With this option enabled, the unlock wire will perform a double pulse every time the unlock command is given. Some vehicles require this double pulse to operate the locks correctly.

Programming Menu Options

You can only program one option at a time. You will have to repeat the procedure to program additional options. Please read through the procedure before beginning.

1. Enter programming by pressing the button, and the button simultaneously until the parking lights flash once.

2. Tap the button the number of times equal to the option you would like to change. For example, if it were the 2nd option in the menu that you would like to change, you would tap the button two times. The parking lights will flash and the siren will chirp each time you tap the button.

3. Wait a few seconds, and the parking lights will flash the number of times corresponding to the option number you are about to modify. If the number of times the lights flash does not correspond with the option you want to change, wait a few seconds and the siren will sound, signaling that you have exited programming mode. After the siren sounds, you can retry the process from the beginning.

4. Immediately after the parking lights stop flashing from step 3, press:
   a. The button for the factory default setting. The parking lights will flash once.
   b. The button for the optional setting. The parking lights will flash twice.

Resetting Menu Options

If you are not sure about current programming, you can change everything to the factory settings and start again.

1. Enter programming by pressing the button, and the button simultaneously until the parking lights flash, and siren chirps, once.

2. Tap the button 3 times, waiting for a parking light flash and siren chirp between each time.

3. The parking lights will flash, and the siren will chirp, three times, signaling that all of the options have been reset, and that you have exited programming mode.